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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/757,711

01/14/2004

Christopher J. Pettey

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7590

12/30/2005

HUFFMAN LAW GROUP, P.C.

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EXAMINER

NGUYEN, BRIAN D

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,711

Applicant(s)

PETTEY ET AL.

Examiner

Brian D. Nguyen

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10-15, 17-19, 22, 23 and 27 is/are rejected.
- 7) ☒ Claim(s) 5-9, 16, 20, 21, 24-26 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/20/04, 10/21/04, 6/7/05, 9/1/05, 9/22/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 22 is objected to because of the following informalities:

Claim 22, line 2, it is suggested to insert --coupled-- after “a bus interface”.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 14-15, 22, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franke et al (2004/0117536) in view of Masuyama (6,961,761).

Regarding claim 1, Franke discloses an Ethernet controller (SWA in figure 1) which processes packets received from a plurality of root complexes (102, 104, 106, 108) via a serial load/store fabric (switch 110), the Ethernet controller comprising a bus interface coupled to the fabric (see connection between SWA and the switch 110). Franke does not specifically disclose the bus interface associating each of the packets with their root complex; and control register logic, having a plurality of control register wherein each of the plurality of control register is selectable to service at least one of the root complexes based on the association of the packets with their originating root complex. However, Masuyama discloses the bus interface associating each of the packets with their root complex (domain 1, 2, 3 in figure 2); and control register logic (125), having a plurality of control register wherein each of the plurality of control register is

Art Unit: 2661

selectable to service at least one of the root complexes based on the association of the packets with their originating root complex (see figures 2-4; col. 2, lines 48-60; col. 4, lines 23-47).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to associating each of the packets with their root complex as taught by Masuyama in the system of Franke in order for the Ethernet controller to identify and process packets received from the plurality of complexes.

Regarding claims 2 and 3, Franke discloses the controller is a gigabit Ethernet controller (see paragraph 0063).

Regarding claim 22, Franke discloses a shared network interface controller (SWA) comprising a bus interface coupled to a serial load/store fabric (110) (see connection between SWA and switch 110 in figure 1). Franke does not specifically disclose a plurality of control registers selectable by the bus interface to be associated with packets from a plurality of root complexes (102, 104, 106, 108). However, Masuyama discloses this limitation (see registers in figures 2-4). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to associating each of the packets with their root complex as taught by Masuyama in the system of Franke in order for the controller to identify and process packets received from the plurality of complexes.

Regarding claims 14, 15, and 27, Franke does not specifically disclose a table for associating each of the control registers with at least one of the root complexes wherein the table is used to select one of the control registers to be used to process each of the packets received by the Ethernet controller. However, Masuyama discloses this limitation (see domain routing table in figure 4). Therefore, it would have been obvious to a person of ordinary skill in the art at the

Art Unit: 2661

time the invention was made to use the table as taught by Masuyama in the system of Franke in order to process the received packets.

4. Claims 4 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franke in view of Masuyama as applied to claim 1 above, and further in view of Peebles (2004/0013124).

Regarding claims 4 and 23, Franke does not specifically disclose the use of PCI express. However, to use PCI express or any standards is a matter of choice. Peebles discloses a system that conforms to any suitable standard including PCI express (see paragraph 0014). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the PCI express as taught by Peebles in the system of Franke in order to meet the design criteria of a particular implementation.

5. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franke in view of Masuyama as applied to claim 1 above, and further in view of Pandya (2004/0165588).

Regarding claims 10-13, Franke does not specifically disclose the operating system is a Microsoft Windows and Linux and the Windows and Linux are unaware that they are sharing the Ethernet controller with any other of the plurality of root complexes. However, different servers/processors using different operating system is well known and is matter of choice. Pandya discloses a system that can use Windows and Linux operating systems (see claim 17). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use different operating systems in different servers/processors as taught by Pandya in the system of Franke in order to service different clients with different operating systems.

Art Unit: 2661

6. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franke in view of Masuyama as applied to claim 1 above, and further in view of Greenblat et al (2003/0212830).

Regarding claims 17-19, Franke does not specifically disclose the registers are dedicated registers or shared registers. However, using the registers as dedicated registers and/or shared registers is a matter of choice. Greenblat discloses a system that use both dedicated registers and shared registers (see dedicated registers in paragraph 401 and shared registers in paragraph 456). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the dedicated and shared registers as taught by Greenblat in the system of Franke in order to meet the design criteria of a particular implementation.

Allowable Subject Matter

7. Claims 5-9, 16, 20-21, 24-26, and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

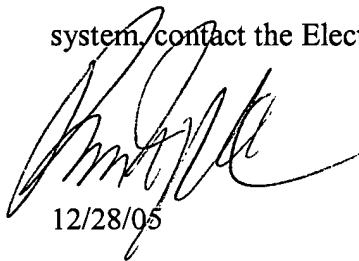
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D. Nguyen whose telephone number is (571) 272-3084. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

Art Unit: 2661

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



12/28/05

BRIAN NGUYEN
PRIMARY EXAMINER